

Remarks/Arguments:

The Office Action mailed February 24, 2006 has been reviewed and carefully considered. Claims 1-5 and 7-12 are pending in this application, with claim 1 being the only independent claim. Claims 11 and 12 have been added. No new matter has been entered. Support for the new claims can be found in paragraph 0021 and Fig. 1 of the original disclosure. Reconsideration of the above-identified application, in view of the following remarks, is respectfully requested.

Claims 1-2 and 7-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,020,042 (Worthington) in view of U.S. Patent No. 5,118,214 (Petrzelka).

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Worthington and Petrzelka in view of U.S. Patent No. 4,811,688 (Turner).

Claims 4-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Worthington and Petrzelka in view of U.S. Patent No. 6,527,029 (Ryser).

Worthington discloses a folder having a drive shaft 5 connected with folder blade shafts 10, 11 which have mounted thereon a plurality of folder blades 12 (see col. 2, lines 24-27). A spur gear is mounted to each of the shafts 10, 11 (col. 2, lines 28-34). However, Worthington fails to teach or suggest that the spur gears 13, 17 are connected to the shafts 10, 11 using a form-fitting connection having serrated toothing, because there is no mention of the type of connection of the spur gears 13, 17 on the shafts 10, 11.

Petrzelka discloses a connecting assembly for use in a propeller shaft of the drive line of a motor vehicle. The assembly comprises a hollow shaft 7 and an inner

connecting piece 1 onto which the shaft is slid. The connecting piece comprises outer teeth 2 which engage a connecting member 8 arranged radially between the connecting piece 1 and the shaft 7 and made from hardened resin which has established an adhesion-fitting connection with the shaft 7. However, there is no teaching or suggestion that the form fitting connection of the connecting member 8 of the hollow shaft 7 to the connecting piece 1 may be applied to the connection of a drive pinion to a folding blade shaft.

As stated in MPEP §2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Starting with the third criterion, the language of independent claim 1 of the present invention cites a drive pinion, which has by definition a toothing around its outer surface. Claim 1 further recites that the drive pinion "connected to the folding-blade shaft with a form-fitting connection by serrated toothing". Therefore, the drive pinion also has a toothing around an inner surface. None of the prior art references teaches or suggests such a drive pinion having toothings on both the outer and the inner surfaces. This drive pinion is a specific construction adapted to the constraints of the folding device according to the invention.

Apart from that, the first criterion is also not met. In this regard, the teaching or suggestion to make the claimed combination must be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

When starting from Worthington, a skilled person would not derive any hint or suggestion from Petrzelka that could lead him to the present invention. First, there is no explicit or implicit motivation in both documents to combine any of the disclosed features, in particular it is not suggested to use the teeth for connecting the hollow shaft 7 and connecting piece 1 of Petrzelka for the connection between a drive pinion and a folding-blade shaft. This is no surprise, as Petrzelka does not refer to folding devices at all. In contrast, the field of motor vehicle drive shafts is completely different from folding devices so that a skilled person would not even consider to search there for improvements. In combining the references, the examiner clearly uses impermissible hindsight.

Further, Petrzelka does not disclose a drive pinion at all, and a drive pinion could not even be used instead of the hollow shaft of the connecting assembly which leads the skilled person away from the present invention.

Finally, none of the following reasons for or achievements by the present invention are discussed or mentioned in any of the cited documents. According to the original disclosure of the present application, the reduced deflection of the folding-blade shaft, the less oblique positioning of the drive pinion, and thus the possibility of reducing the tooth play, all resulting from the use of the third middle bearing (see paragraph 0010, lines 1-4 of the original disclosure), promote the use of this special embodiment of

a drive pinion between the folding-blade shaft and a corresponding drive unit. In addition, this specific drive pinion can cope with the increased rotational speed of the folding device (see paragraph 0007, lines 1-6, of the original disclosure) and increase the folding accuracy (see paragraph 0010, lines 4-5, of the original disclosure). Therefore, there was no motivation whatsoever for a skilled person to combine the two cited references, and even if he did so, he would not be guided to the present invention.

In view of all of the above remarks, independent claim 1 is deemed to be allowable over Worthington in view of Petrzella

Dependent claims 2-5 and 7-12, each being dependent on independent claim 1, are allowable for at least the same reasons described above with respect to independent claim 1.

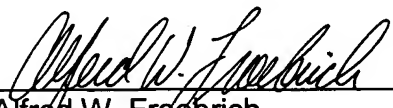
In particular, none of the prior art references teaches or suggests the limitations according to claims 10-12. The prevention of any translational movement of the drive pinion relative to the shaft with the aid of the screw connection and the clamping element on both sides of the drive pinion is novel and adapted to the specific field of application in a folding device.

In view of the above amendments and remarks, the application is deemed to be in condition for allowance and notice to that effect is solicited.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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